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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,794	11/10/2000	Wen-Shi Huang	39088/205	4359

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EXAMINER

TAMAI, KARL I

ART UNIT PAPER NUMBER

2834

DATE MAILED: 12/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/709,794

Applicant(s)

HUANG ET AL.

Examiner

Tamai IE Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,6,7,12,13,16-19 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,12,13,16-19 and 26-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first and second magnetic ring connected to the base (from claim 1) must be shown or the features canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The rejection of Claims 16-20 under 35 U.S.C. 112, first paragraph, is withdrawn as the claims have been amended to remove the unsupported claim limitations.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 recites the limitation "said inner magnetic ring" and "said outer magnetic ring". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Marchal et al. (Marchal)(FR 1,273,897). Marchal teaches a mechanical and magnetic bearing with a upper and lower magnetic bearings with one ring magnetic on the stator and two on the shaft (see figure 6), and a sleeve bearing 2a,b.

7. The rejection of Claims 1, 12, and 13 under 35 U.S.C. 102(b) is withdrawn.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 6, 7, 13, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jarvik (US 5,507,629) and Miyamoto et al. (Miyamoto)(JP 55-36635). Jarvik teaches a blood pump with mechanical and passive repulsive, magnetic bearings. Jarvik teaches a single magnet on the rotor and stator which are radially

aligned. Jarvik does not teach a second stator magnet which is axially aligned with the first stator magnet. Miyamoto teaches a second stator magnet which is axially aligned with the first stator magnet. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the bearing of Jarvik with additional magnet of Miyamoto to improve the spring constant of the magnetic bearings.

10. Claims 1, 6, 7, 12, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokono (JP 62-95952) and Miyamoto et al. (Miyamoto)(JP 55-36635). Yokono teaches a generator with mechanical and passive repulsive, magnetic bearings. Yokono teaches a plurality of magnets on the stator and rotor. Miyamoto teaches a first and second stator magnets which are axially aligned with the rotor magnet positioned within one of the stator magnets. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the generator of Yokono with two stator magnets and one rotor magnet of Miyamoto to provide a magnetic bearing with improved the spring constant.

11. Claims 18, 19, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchal et al. (Marchal)(FR 1,273,897) and Wampler (US 5,840,070). Marchal teaches every aspect of the invention except upper magnetic bearing being an inner and outer repulsive magnetic bearing. Wampler teaches the upper bearing 21 being inner and outer repulsive magnetic bearing with the inner and outer bearings being radially aligned. It would have been obvious to a person of

ordinary skill in the art at the time of the invention to construct the bearing of Marchal with the upper bearings of Wampler to provide passive bearings for a less expensive blood pump.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marchal et al. (Marchal)(FR 1,273,897) and Wampler (US 5,840,070). Marchal teaches every aspect of the invention except inner and outer magnetic diameters being substantially aligned. Wampler shows the inner and outer magnets being substantially aligned, see figure 11. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the bearing of Marchal with the upper bearings of Wampler to provide passive bearings for a less expensive blood pump.

13. The prior art rejections of the prior office action under 35 USC 103 are withdrawn.

***Response to Arguments***

14. The Applicant's argument that Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066.


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The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703) 308-1371. The facsimile number for the Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Karl I Tamai  
PRIMARY PATENT EXAMINER  
December 5, 2002

  
KARL TAMAI  
PRIMARY EXAMINER